

REMARKS

As a preliminary matter, Applicants respectfully traverse the Examiner's mischaracterization of claims 1 and 3 of the present invention with regard to the Election/Restriction Requirement placed on these claims. The Examiner states that "claim 1 cites the steps of forming first and second conductive films according to Figure 16 and claim 3 cites the steps of forming a (single) conductive film according to Figure 18." Neither of these claims, however, recites any such language. Neither "Figure 16" nor "Figure 18" is recited the language of either claim. The Examiner is charged with the burden of examining the actual language of the claims themselves, and may interpret the claims to add limitations that do not appear in the claims or are supported by the Specification.

Additionally, the Examiner has not rebutted Applicants' previous argument that there is no serious burden placed upon the Examiner to examine one additional claim of the present Application. Again, it is the Examiner's responsibility to establish that a serious burden is placed on him to examine one more claim, and not just *some* additional burden. Conclusory statements alone do not satisfy this responsibility. The Examiner may discharge this responsibility by citing specific claim language from the single claim at issue, explain on the record what additional search and considerations, if any, might be necessary to examine the cited language from the claim, and how such an examination would impose a serious burden upon the Examiner for the examination. Because the Examiner's remarks in response to Applicants' traversal of the Election/Restriction Requirement do not satisfy these requirements, the Restriction should be withdrawn.

Claims 1-2 and 5 again stand rejected under 35 U.S.C. 103(a) as being unpatentable over Henley (U.S. 5,459,410) in view of Yamamoto et al. (U.S. 5,600,460). Applicants respectfully traverse this rejection for at least the reasons of record, and as follows. The Examiner has not established *prima facie* case of obviousness against the present invention. Neither of the two cited references teaches or suggests first and second contact holes that both have a width larger than the width of the disconnected wiring, contact holes that are formed to a depth to expose the upper surface and both side surfaces of the disconnected wiring, as in claim 1 of the present invention, as last amended.

Initially, Applicants traverse the Office Action as being nonresponsive with respect to this repeated rejection. Section 707.07(f) of the MPEP places a burden upon the Examiner, when repeating a previous rejection, to first answer the substance of all of Applicants' previous arguments traversing the rejection. In the present case, however, the Examiner has not done so.

First, the Examiner erroneously asserts that the "only arguments" made in Response A, filed November 10, 2003, were that "Henley (with or without Yamamoto) does not disclose or suggest forming contact holes for repairing disconnected wirings that are wider than the disconnected wirings." Although this statement by the Examiner reasonably paraphrases *one* of Applicants' arguments, it hardly accounts for all of the meritorious arguments provided on pages 16 through 18 of Response A, which are incorporated by reference herein. Accordingly, for at least these reasons, the Office Action should be vacated, and full consideration given to all of Applicants' previous meritorious arguments.

Second, the Examiner has not fully answered the acknowledged argument, above. The Examiner's entire response to the argument is that "Henley discloses forming a contact hole being wider than the disconnected wirings (see attachments)." No attachment, however, was provided with the outstanding Office Action. Applicants thank the Examiner though, for sending a copy of the intended attachment by facsimile to Applicants' representative on January 24, 2005. Because the attachment was not included in the original Office Action though, the Office Action should be vacated for at least this additional reason, and the time for response reset to reflect at least the January 24, 2005 date. Applicants further traverse the outstanding rejection as follows.

Despite the Examiner's contrary assertions and personal markings on Fig. 12b of Henley, Henley does not disclose contact holes for repairing a disconnected wiring that are wider than the wiring itself. Henley illustrates contact holes only in Figs. 11a-b, and Figs. 12b-c. In all four of these drawings, however, the width of the contact holes 74, 76/84, 86 are clearly shown to be less than the width of the respective wirings 13/15. Although Applicants concede that the schematic illustrations are not necessarily to-scale, the outer width boundaries of the holes 74/84, 76/86 are all clearly shown to at least be within the inner width boundaries of the disconnected wirings 13/15 in the same width direction. The Examiner's markings to Fig. 12b, however, do not accurately or reasonably interpret the drawing, nor the unambiguous teachings of the Specification to the present Application.

First, the Examiner's personal notations to Fig. 12b are unreasonable, because they are not consistent. The Examiner marks the "width" of the disconnection wiring as

being along a different axis from the “width” of the contact hole in the same location in the wiring. It is unreasonable for the Examiner to change the width axes for different elements of the reference *at the exact same location*. What the Examiner has actually identified in the attachment is the length of the contact hole in Henley, and not its width. Although length and width may be arbitrarily assigned, they are not arbitrary with respect to one another. Accordingly, the attachment does not support the Examiner’s assertions.

Second, even if the Examiner’s inconsistent assignment of length and width could be considered reasonable (which Applicants do not concede), Fig. 12b of Henley still does not support the Examiner’s assertions that Henley shows a contact hole having a width greater than that of the disconnected wiring. Schematic patent drawings are not considered to be to-scale when dimensions are not provided. All of the external dimensions of the contact hole 84 in Henley are clearly shown to be contained within the boundaries of the width of the wiring 15. Accordingly, no reasonable reading of the reference itself could assume that *either* dimension of the contact hole 84 would be larger than the width of the wiring. The Examiner is required to point to some teaching (or suggestion) within the prior art reference itself to support his assertions. Henley though, provides no such teachings or suggestions.

Applicants additionally note that the Examiner’s own markings on the respective elements in Fig. 12b are inappropriately exaggerated. The Examiner has drawn the space between the arrows designating the “contact hole width” larger than the length of the contact hole. Similarly, the space between the Examiner’s arrows designating the

“disconnected wiring width” is smaller than the actual width of the wiring shown. Were the Examiner to actually measure the dimensions he marked, he will find that the length of the contact hole 84 is, at most, equal to the width of the wiring 15, and therefore still does not read upon the cited limitations of the present invention. This interpretation is further supported by Fig. 12c, which illustrates the length of the contact hole being the same as the width of the perpendicular wiring 88. Henley provides no teaching or suggestion that the various wirings have different respective widths.

Third, and irrespective of the Examiner’s attachment, the Examiner is still required to interpret the claims of the present invention in light of the teachings of the present Specification. The Specification to the present Application defines and illustrates the “widths” of the contact holes and their associated wirings consistently with respect to one another. Fig. 16 of the present Application, for example, clearly shows the width of the contact hole 203 being greater than the width of the wiring 101. “Width,” in this respect, is used consistently throughout the Specification to refer to the same direction at the same location, and thus contradicts the Examiner’s inconsistent application of the term.

Also, Fig. 16 even shows outer boundaries of the contact hole extending beyond either border of the wiring in the width direction. The Specification expressly designates these outer boundaries of the contact holes to be “widths” (page 40, lines 15-18), and never contradicts this designation. According to this clear definition in the present Specification, the Examiner’s mark-up of Henley’s Fig. 12b is inappropriate, and does not read upon the present invention.

Applicants are at a loss to understand the Examiner’s additional reliance on the Abstract and Fig. 28 of Yamamoto as support for somehow teaching or suggesting many other features of the present invention, namely, first and second conductive films that are both electrically connected to the upper surface and both side surfaces of the disconnected wiring. Yamamoto’s Abstract only teaches “the step of repairing the disconnection by attaching a conductive material to the disconnected portion of the wiring layer.” The Abstract says nothing about how or where such conductive material is attached to the wiring layer. Fig. 28 similarly fails to show how or where such conductive material is attached to the disconnected portion of the wiring. Fig. 28 is an elevated schematic view only, which shows the junction layers jn1, jn2 in the vicinity of the disconnected video signal line DL, but does not show any attachment to the line itself. Accordingly, the cited portions from Yamamoto fail to support the Examiner’s assertions, and thus a *prima facie* case of obviousness further has not been established.

Furthermore, the rejection is deficient because the Examiner has not cited to any teaching or suggestion within either of the prior art references themselves for the motivation to combine the references to reach the present invention. The Examiner’s proposed combination therefore, demonstrates an impermissible use of hindsight, because the only motivation of record for the combination comes from the present Application, and no objective source has been cited for providing the motivation to combine Henley with Yamamoto. Applicants submit that no motivation could be found within either of the two cited prior art references for the Examiner’s proposed combination. It could not be obvious

to modify Henley's disclosure without some specific teaching of how and why to have the contact hole dimensions extend wider than the wire width dimensions. The motivation for the combination must be taught or suggested by the prior art references themselves, and can not be merely conclusory statements based on the Examiner's personal understanding. See In re Lee, 277 F.3d 1338, 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002).

Nevertheless, in an effort to expedite prosecution, independent claim 1 has been amended herein to exclude even the Examiner's unreasonable interpretation of the claim features at issue. Specifically, claim 1 now more clearly recites that the upper surface and both side surfaces of the disconnected wiring within the contact holes are exposed. In other words, the contact hole width must be larger than that of the wiring so as to expose the upper surface *and both side surfaces* within the hole dimensions. Fig. 12B of Henley, on the other hand, clearly shows that both side surfaces of the wiring are *outside* the dimensions of the contact hole. Therefore, Henley cannot teach or suggest any exposure of the side surfaces of the wiring within the contact hole. For at least these additional reasons therefore, the outstanding rejection of the claims must be withdrawn.

New claim 39 has been added to even further distinguish the present invention from the prior art, and further demonstrates the inappropriateness Examiner's overly broad interpretation of the prior art references. Specifically, new claim 39 defines the width direction for the contact holes, the wiring, and the conductors as being the same direction at one location. Although the recitation of these features in new claim 39 should not have been necessary, entry and allowance of the claim are nevertheless respectfully requested.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1-5 and 39, is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

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